IDD-212GL/S User Manual

(Rev. 1.1)

CHINA AEROSPACE Telecommunication Co., Ltd.

April, 2013

Contents

1. Introduction 2

2. Specifications 3

2.1 External Interface 3
2.2 Status Indicator 4
2.3 Technical Parameters 5

3. Device Configuration 6

3.1 PC Tool 6
3.2 SMS Instructions 6

4. Installation Instruction 7

4.1 SIM Card Installation 7
4.2 OBD Port 8
4.3 Device Installation 9

5. Functions 10

5.1 OBD Protocols 10
5.2 Location Tracking 11
5.3 Diagnostic Data Reporting 11
5.4 DTCs Reporting 11
5.5 Trip Mileage 11
5.6 Trip Fuel Consumption 11
5.7 Alarms Reporting 11
5.8 Driver Identification 12
5.9 Tracker Mode 12
5.10 Remote Configuration 12
5.11 SMS Configuration 12
5.12 PC Tool Configuration 12

6. FAQ 13

7. Disclaimer 15

8. Warranty 16

9. Statement 18

1. Introduction

IDD-212GL/S is on-board intelligent diagnostic equipment, it is compatible with OBD II and SAE J1939/J1708 (Heavy duty) standard, and it features real-time tracking, remote diagnosing and alarm reporting.

IDD-212GL/S is a plug and play device to the OBD II port, it captures position info, vehicle diagnostic data, diagnostic trouble codes, and reports them to the server, the server will analyze, store and display such info to users to have a general overview of their cars remotely.

Packing List

Parts name	Quantity	Note
IDD-212GL/S OBD Dongle	1	●
User Manual	1	●
USB Configuration Cable	1	○
G-Mouse (HT-166U)	1	○
Driving Behavior Monitor (HT-196)	1	○
OBD II extension cable	1	○
OBD-16 wiring harness	1	○
9-Pin deutsch wiring harness	1	○
6-Pin deutsch wiring harness	1	○

Note: ● Standard configuration ○ Optional configuration

(Optional accessories will not be included if there is no indication in the order)

2. Specifications

2.1 External Interface

Product appearance as follows：

Standard OBD Connector

It is used to connect to the 16 pin on-board Diagnostic Link Connector (DLC).

The vehicle OBD system is able to communicate with an external device which has the same protocol via this connector.

G-Mouse Interface

This is a multifunctional interface which is used for parameters configuration, connecting the G-Mouse or Driving Behavior Monitor.

SIM Card slot

It is used for inserting the SIM card.

2.2 Status Indicator

Indicator	Color	Status
Power LED	Red	Solid on - Power on Fast blinking - Charging or no internal battery Slow blinking - Working with internal battery Solid off - In sleep
GSM LED	Orange	Slow blinking (on:64ms, off:2s) - Registered network Fast blinking (on:64ms, off:800ms) - No SIM card or Network searching Solid off - GSM off Solid on - GSM abnormal
OBD LED	Green	Blinking - Trying to communicate with OBD system Solid on - Successful OBD communication Solid off - No OBD communication
G-Mouse LED	Green	Blinking - GPS signal is good Solid on - Searching for GPS signal Solid off - GPS off
Buzzer		One beep - Power on Two beeps - Successful OBD communication Three beeps - Successful log in Four beeps - Trip end and stop OBD communication Five beeps - Power off Six beeps - Fail to access OBD system Five beeps (short beep) - Alarm indication

2.3 Technical Parameters

Working voltage	9~36V DC	Average current	<150 mA@13.8V/27.6V
Positioning mode	GPS/A-GPS	Sleep current	<10mA@12V/24V
Position accuracy	5m CEP	Max current	<200mA@13.8V/27.6V
Velocity accuracy	≤0.1m/s	Working temperature	-30℃～+70℃
Data Transmission	GPRS/SMS	Storage temperature	-40℃～+85℃
GSM band	850/900/ 1800/1900MHz	Relative humidity	5%～95% (no frost)
Dimension	63*50*28mm (L*W*H)	Backup battery	100mAH lithium battery
Weight	50g		

3. Device Configuration

3.1 PC Tool

Please refer to <<New OBD Smart PC Tool User Guide>>

3.2 SMS Instructions

SMS command is mainly for remote maintenance. The message content is text format. Default secret key is the last 6 digits of the device ID. The key can only be changed through PC Tool. SMS format is defined as follows:

3.2.1 Set IP parameters:

SecretKey#set gprs#APN,User,Password,IP,Port

e.g.: *123456#set gprs#cmnet,,,113.98.241.66,11088*

3.2.2 Set IP parameters response:

set gprs#ok: success

set gprs#fail: fail

3.2.3 Read IP parameters:

SecretKey#get gprs#

e.g.: *123456#get gprs#*

3.2.4 Read IP parameters response:

get gprs#APN,User,Password,IP,Port

3.2.5 Set the domain parameters:

SecretKey#set domain #APN,User,Password,IP,Port

e.g.: *123456#set domain# cmnet,,,obd.livetelematics.com,11088*

3.2.6 Set the domain parameters response:

set domain#ok: success

set domain#fail: fail

3.2.7 Read domain parameters:

SecretKey#get domain#

e.g.: *123456#get domain#*

3.2.8 Read domain parameters response:

get domain#APN,User,Password,domain,Port

4. Installation Instruction

4.1 SIM Card Installation

Remove the SIM card cover, insert the SIM card into the device and press gently, then insert the SIM card cover back.

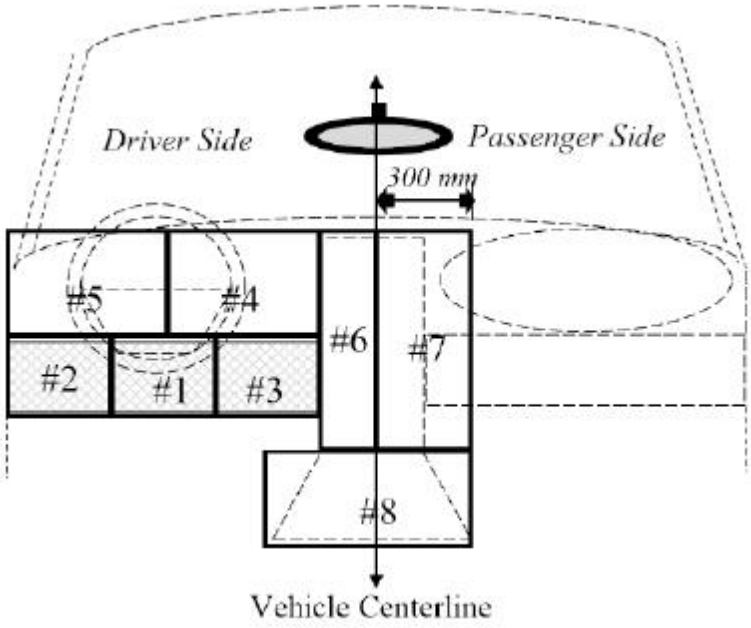
4.1.1 Remove the SIM card cover

4.1.2 Insert the SIM card into the device

4.1.3 Insert the SIM cover

4.2 OBD Port

In general, the OBD port is located in the driver or passenger cabin, from the edge of dashboard on driver side to the border of 300mm. It is easy to touch by sitting in the driver's seat; the preferred location is within the area from steering post to the vehicle centerline.



4.3 Device Installation

Park the car and make sure engine is off, connect the G-Mouse or Driving Behavior Monitor to the device.

Fix the G-Mouse or Driving Behavior Monitor on the dashboard horizontally; make sure no mental shielding above them.

Plug the device into OBD port, most heavy duties may need 9-Pin or 6-Pin deutsch wiring harness.

Start engine in 3 minutes after plugging the device into OBD port, or the device will go into tracker mode and no longer communicate with the vehicle any more.

5. Functions

5.1 OBD Protocols

The device supports all legislated OBD II protocols; it is also SAE J1939 and SAE J1708 compliant.

- SAE J1850-PWM
- SAE J1850-VPW
- ISO 9141-2
- ISO 14230-4 (KWP2000)

- ISO 15765-4 (CAN)
- SAE J1939 (Heavy duty)
- SAE J1587/J1708 (Heavy duty)

5.2 Location Tracking

Real-time location tracking with optional G-Mouse or Driving Behavior Monitor

5.3 Diagnostic Data Reporting

The device is able to read variety of vehicle diagnostic data, including vehicle speed, engine RPM, engine coolant temperature, mass flow air, etc, and reports at most 10 types of diagnostic data to the server.

5.4 DTCs Reporting

The device is able to read vehicle pending and stored DTCs, and freeze frame data. The backend server analyzes and displays the DTCs for users on time to avoid high repairing cost.

5.5 Trip Mileage

At the end of the trip, device reports driving mileage to the server.

5.6 Trip Fuel Consumption

At the end of the trip, device reports fuel consumption to server.

5.7 Alarms Reporting

Below events can trigger alarms reports and accompanied with beep indication.

- High RPM
- High Speed
- Low Battery Voltage
- High Engine Coolant Temperature
- Hard Acceleration
- Hard Brake
- Sharp Turn (with optional Driving Behavior Monitor)
- Sharp Lane Changing (with optional Driving Behavior Monitor)
- Crash (with optional Driving Behavior Monitor)
- Long Engine Idle Time

- Fatigue Driving
- Towed
- High Exhaust Emission
- Power On
- Power Off

5.8 Driver Identification

With optional Driving Behavior Monitor the device is able to detect RFID cards and reports card IDs to the server.

5.9 Tracker Mode

If the device fails to communicate with the vehicle or engine remains off for 3 minutes after device is plugged into OBD port, it will go into tracker mode. In tracker mode, device does not support diagnostic function, trip fuel consumption and some alarms reporting including high RPM, high engine coolant temperature, over engine idle time and high exhaust emission.

5.10 Remote Configuration

Users can configure device or update firmware through website: http://www.livetelematics.com.

5.11 SMS Configuration

Users can configure device via SMS commands.

5.12 PC Tool Configuration

Users can configure device or update firmware through PC Tool.

6. FAQ

Q: Why my phone is unable to receive the alarm message via SMS?

A: 1) Make sure the SIM card has SMS function.

2) Before install the SIM card, please check if the card still has a balance, and the SIM card should be installed properly according to the guide in this manual.

3) Check whether the settings are correct and the alarm switch is on in the PC tool or in the platform.

Q: Does the device can read the TPMS's DTC information? (TPMS, Tire Pressure Monitoring System)

A: No, this product is based on the OBD system; it only reads information of the engine system.

Q: Does the device can upload the voltage value?

A: No, but it will send a low voltage alarm if the voltage is lower than the preset value.

Q: why there is no driving record after a trip?

A: The device need synchronize it's time with the server or GPS first, it can only start trip recording after synchronization is done.

Q: Why the device utters a "beep" tone every 30 seconds after it is installed?

A: This tone shows that the car has not been equipped with OBD system, or this product is not suitable for the car.

Q: Why there is driving record, but no track data?

A: Please confirm that you have bought a G-Mouse receiver;

Please make sure you have connected the G-Mouse receiver and it has been correctly installed, GPS upload switch should be on via PC tool or server.

Q: Why dashboard lights are on after plugging in this device?

A: In this case, please remove the device and contact CASTEL.

Q: Why there are three beeps occurred sometime during the driving?

A: When the GPRS signal is not good, the device may reconnect the server and accompanied with three beeps.

If there are any more questions, please contact CASTEL's technical support team.

7. Disclaimer

This user manual only applies to IDD-212GL/S device.

The device is compatible with OBD II standard; it is also SAE J1939 and J1708 compliant. While some vehicles are not following those standards. Therefore CASTEL can not guarantee the OBD performance of the device with every vehicle.

G-Mouse receives and tracks satellite signal continually. The poisoning function may be affected in electromagnetic shielding area or bunker place.

The device has a built-in wireless communication module. It should be used as far as possible away from fuel depots, chemical plants and other areas could cause an explosion. Most sensitive to external RF sites (such as gas stations, hospitals and school, etc.) may be equipped with radio frequency jamming equipment; some functions may be affected in the interference area.

As the device transmits data via GPRS, please use the SIM card which supports GPRS data service and make sure that the account balances is sufficient. Do not use any SIM card which is restricted by region.

To make sure the products works well, please use the original accessories.

This manual is based on the “as-is” situation. CASTEL will not guarantee the accuracy, reliability and content of the handbook. Also Castel reserves the right to amend or withdrawn this manual without any prior notification.

8. Warranty

If product got quality problem within the warranty period, please bring the product together with a valid warranty card and purchase invoice to the dealer for checking. Please do not disassemble this product, this may result in damage, CASTEL will not be responsible for those problem.

1 year of warranty since purchase time and life-long maintenance. For Failure or damage due to incorrect operation or not following the instruction, CASTEL will provide paid maintenance within warranty period.

User name: _____

Contact number: _____

Address: _____

Post code: _____

Purchasing date: _____

Serial number: _____

Remark: _____

Please keep this card carefully in order to better serve you.

Distributor (Company Chop):

Maintenance Records

Product Model:

Date	Faults and maintenance of records		Maintenance (Signature)	User (Signature)
	Fault Description	Maintenance		

Note: This form must be carefully completed.

9. Statement

Without written permission from CASTEL, it is prohibited reproduce, transmit, distribute or save part or all of the contents of this document in any form.

Castel reserves the rights to modify or improve these products without any prior notification.

CASTEL reserves the rights to change or cancel the content of this document without any prior notification.

All rights reserved by CHINA AEROSPACE Telecommunication Co., Ltd.

Address: 5/F, 5th Building, Software Park, 2nd Keji, C., 3rd, Road, Hi Tech Park, Shenzhen, China
Postcode: 518057
Tel: (86)755-86018742
Fax: (86)755-86018712
http://www.castelecom.com